

In the claims:

Please amend the claims as follows:

1 (Currently Amended). A method for obtaining the leucocyte components from human blood comprising;

(A) a first step for fracturing the cell membranes of leucocytes of the human blood by physical means, and

(B) a second step for separating the leucocyte components from the blood liquid resulted resulting from the first step, said blood liquid containing the leucocytes with fractured cell membranes, in order so that to collect the separated layers (or parts) can be collected ^{a leucocyte components} _{and} individually.

2 (Currently Amended). The method for obtaining the leucocyte components from human blood according to claim 1, wherein the said physical means used in the said first step (A) for fracturing the said cell membranes of leucocytes is selected from the group consisting of:

(a) a supersonic method for applying the supersonic sound waves selected from between of 1 MHz to and 50 MHz to the said blood (liquid) containing leucocytes in order to fracture the said cell membranes of leucocytes by the vibration thereof caused by the supersonic;

(b) a laser method employing a laser having a power selected from between for irradiating the laser of 10 and to 100 mW, ~~50/cm²~~ for irradiating said blood (liquid) for a time up to several seconds to several minutes (about 3 minutes) to the same point in the said blood liquid containing leucocytes in order to fracture the said cell membranes of said leucocytes;

(c) an osmotic pressure method for changing the an osmotic pressure of the said blood (liquid) containing leucocytes to fracture the said cell membranes;

(d) a freezing and defrosting method for freezing the said blood (liquid) containing leucocytes at the a temperature range from selected from between -5 degrees Celsius to the absolute zero point and then thereafter defrosting this said frozen blood (liquid) at a about room temperature (about 20 degrees) to fracture the said cell membranes; and

(e) a vacuum method for rapidly-reducing the pressure in a vacuum chamber to fracture the said cell membranes of the said blood (liquid) containing leucocytes set in the said vacuum chamber.

3 (Currently Amended). The method for obtaining the leucocyte components from human blood according to claim 1, wherein the said second step (B) for separating the said leucocyte components includes a centrifugal precipitation which stirs the said blood liquid containing the said leucocytes with cell membranes fractured by the said first step (A), and then separates the said stirred blood liquid into multiple layers corresponding to the leucocyte components by the centrifugal precipitation.

4 (Currently Amended). The method for obtaining the leucocyte components from human blood according to claim 1, wherein the said second step (B) includes an electrophoresis ~~work~~ step which separates the said blood liquid containing the said leucocytes with fractured cell membranes obtained by the said first step (A) into multiple

parts containing isolated corresponding to the said leucocyte components by the electrophoresis work.

5 (Currently Amended). The method for obtaining the leucocyte components from human blood according to claim 1, wherein the said first step (A) uses the cultured leucocytes obtained from the specific persons who are judged healthy through predetermined health and blood checks.

6 (Currently Amended). The method for obtaining the leucocyte components from human blood according to claim 1, further comprising a step for finding determining therapeutic effects ~~owing to of~~ of the separated and collected leucocyte components, said step including ~~various therapeutic tests using blood samples collected from patients suffering from various diseases~~ combining isolated leucocyte components with blood cells obtained from a patient with a pre-determined disease and thereafter observing effects of said isolated leucocyte components when combined with said blood cells.

7 (New). A method of identifying a therapeutically effective leucocyte component comprising:

fracturing cell membranes of leucocytes cultured from healthy human blood by physical means and isolating leucocyte components obtained therefrom;

obtaining blood cells from a patient with a pre-determined disease and separating said blood cells into upper layer blood cells and lower layer blood cells;

dividing each of said upper layer blood cells and lower layer blood cells into a plurality of test samples;

adding said isolated leucocyte components to said plurality of test samples thereby to determine the therapeutic effect of each said isolated leucocyte component on said blood cells; and

selecting a leucocyte component therapeutically effective for treating said pre-selected disease by identifying the component which, when added to said test samples, results in the least degeneration of erythrocytes and longest erythrocyte life span.

8 (New). The method according to claim 7 wherein the physical means for fracturing cell membranes is a method selected from the group consisting of:

(a) a supersonic method for applying supersonic sound waves selected from between 1 MHz and 50 MHz to said blood (liquid) containing leucocytes in order to fracture said cell membranes of leucocytes by vibration thereof;

(b) a laser method employing a laser having a power selected from between 10 and 100 mW for irradiating said blood (liquid) for a time up to about 3 minutes in order to fracture said cell membranes of said leucocytes;

(c) an osmotic pressure method for changing an osmotic pressure of said blood (liquid) containing leucocytes to fracture said cell membranes;

(d) a freezing and defrosting method for freezing said blood (liquid) containing leucocytes at a temperature selected from between -5 degrees Celsius to absolute zero and thereafter defrosting said frozen blood (liquid) at about room temperature to fracture said cell membranes; and

(e) a vacuum method for rapidly-reducing pressure in a vacuum chamber to fracture said cell membranes of said blood (liquid) containing leucocytes in said vacuum chamber.

9(New). The method according to claim 7 wherein prior to said cell membrane fracturing step, said leucocytes obtained from healthy human blood are incubated.

10(New). The method according to claim 9 wherein said leucocytes obtained from healthy human blood are incubated for approximately 48 hours.

11(New). The method according to claim 9 wherein said upper and lower layer blood cells are incubated prior to adding said isolated leucocyte components.

12(New). The method according to claim 11 wherein said upper and lower layer blood cells are mixed with tissue culture medium and thereafter incubated at approximately 37 degrees Celsius in approximately 5% carbon dioxide.

13(New). The method according to claim 11 further including an additional step wherein after said isolated leucocyte components are added to said test samples, said test samples, in combination with said isolated leucocyte components, are incubated.